

**Section IV:**  
**AMENDMENT UNDER 37 CFR §1.121**  
**REMARKS**

**Summary of Application Status**

In the Office Action dated April 4, 2007, it was noted that Claims 1 - 27 are pending, and that prosecution was being reopened following the filing of an Appeal Brief. However, Appellant's Brief was filed on December 14, 2006, not on January 18, 2007, as noted in the Office Action.

It was also noted that the previous rejections were withdrawn, and new rejections of all claims have been made over new grounds. Applicant believes the following table accurately maps the cited art to each claim as applied in rationale for the rejections:

Table 1: References as Applied to Each Claim

<u>Claim</u>	<u>Starnes</u>	<u>Prvor</u>	<u>Reference Applied</u>			<u>Fleck</u>
			<u>Pond</u>	<u>Hiroaki</u>	<u>Lawrence</u>	
1	X	X				
2	X	X				
3	X	X				
4	X	X	X			
5	X	X				
6	X	X	X			
7	X	X	X			
8	X	X		X	X	
9	X	X				X
10	X	X				
11	X	X				
12	X	X				
13	X	X				
14	X	X				
15	X	X				
16	X	X	X			
17	X	X		X	X	
18	X	X				X
19	X	X				
20	X	X				
21	X	X				
22	X	X	X			
23	X	X				
24	X	X				
25	X	X	X			
26	X	X		X	X	
27	X	X				X

**Rejections under 35 U.S.C. §103(a)**

In the Office Action, 1 - 27 were rejected over Starner (previously cited) in view of Pryor (previously cited), some in further view of Pond, others in further view of Fleck, and others in further view of Lawrence in further view of Hiroaki.

***Claim 1, First Element.*** Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Starner in view of Pryor. In the Office Action starting on Page 2, it was reasoned by the Examiner in the Office Action that Applicant's first claim element of:

"providing a panel mounted on a controlled system, the panel having a plurality of gesturing sensors in a two-dimensional arrangement, each sensor being adapted to detect a gesturing instrument within a proximity of a sensor, each sensor having an independent detection event signal; . . . "

is taught by Starner:

"Starner teaches a method detecting free-space gesture comprising the steps of providing a plurality of sensors such as plurality of lenses or a plurality of mirrors mounted on a control system and the sensors are adapted to detect a gesturing instrument (101) in proximity to the sensors (paragraph 020)."

With respect to Starner's gesturing instrument (101), or "object" as shown in Starner's Figure 1, Applicant respectfully disagrees.

Starner's paragraph 0020 describes a singular sensor, such as a camera, which may be equipped with a plurality of lenses or mirrors. Lenses or mirrors, however, are not by themselves sensors. Applicants respectfully submit that lenses are well known to be used in series with each other to achieve a focus on a single image sensor, such as a charge-coupled device ("CCD"). Similarly, mirrors are well known to be used in series with each other to achieve a viewing point or angle with respect to a single image sensor. Thus, Starner fails to

teach a plurality of sensors positioned in a two-dimensional arrangement.

If one were to interpret that the individual light pixel sensors of a CCD were such an 2-D arrangement of sensors, this would be true, however the claim phrase "each sensor being adapted to detect a gesturing instrument within a proximity of a sensor" would not be met because CCD sensors do not detect light from objects close-by the sensor (e.g. in proximity), but rather detect light from objects appropriated spaced apart from the sensor with intervening focus mechanisms (e.g. lenses, mirrors, etc.). It is well known that objects close to a CCD image sensor are not operably detected by the sensor without the intervening distance (e.g. focal length) and focusing elements.

With respect to the claim element phrase "providing a panel mounted of a controlled system, the panel having a plurality of sensors . . . ", the Examiner has agreed that Starner fails to teach thi, but has reasoned that Pryor teaches this claim aspect:

"Starner et al. is however not explicit in teaching the plurality of gesture sensors mounted on a panel in a two dimensional array. Pryor in an art related machine interface invention teaches the mounting of gesture sensors (109, 108, 100, 101) on a panel (138) for detecting a gesture (col. 2 lines 32-41)."

This is at odds with Starner's paragraph 0024, however, which mentions that their light sources and their image-forming device (103) can be located in a pin or pendant placed on the user. The user, in their system, is not the controlled system, and thus Starner fails to teach this aspect of Claim 1 as agreed by the Examiner. It is not clear from the proposed changes how Starner's system would continue to operate if Starner's sensors were moved to Pryor's panel. It appears that more functionality of Pryor's disclosure may be necessary, but it is unclear how this would be done and what other changes may be necessary. Applicant respectfully submits that there is missing information needed to complete this combination, and as such, an enabling disclosure is not provided in the art (see following paragraphs for further reasoning).

With respect to the claim element "independent detection event signal" being produced or emitted by Starner's camera, Applicant respectfully disagrees this is taught. Starner's camera output would presumably be a standard output of a camera, such as a composite video signal, RGB signal, etc., converted to image data (para. 0027), and not individual pixel signals.

Starner's image processing method to detect movement of the gesturing instrument is not disclosed as a pixel-by-pixel evaluation, but instead is a Hidden Markov Model process (para. 0030) which detects the movement of the object in the images from the sensor. Thus, Starner fails to teach "independent detection event signals" from the array of image sensors.

***Claim 1, Second Element.*** In the Office Action starting on Page 2, it was reasoned by the Examiner in the Office Action that Applicant's second claim element of:

"... determining a sensor sequence from a series of sensor detection events responsive to movement of a gesturing instrument within the proximity of said plurality of sensors; . . . "

is taught by Starner:

Starner et al. teaches determining a sensor sequence from a series of sensor detection events of capturing the images of the user device and correlating the sensor sequence by converting the set of images to data representing the captured set of images in order to authenticate the user of the gesturing instrument (paragraph 027).

Applicant respectfully disagrees that Starner teaches any event-driven analysis. "Events" are well-known in the computing and real-time control professions as being timely signals, usually time-stamped signals, which represents a sequence of real-time occurrences. For example Random House Webster's Computer and Internet Dictionary, Third Edition, by Philip E. Margolis (copyright 1999) defines an "event" as:

**event** An action or occurrence detected by a program. Events can be user actions, such as clicking a mouse button or pressing a key, or systems occurrences, such as running out of memory. Most modern applications, particularly those that run in Macintosh and Windows environments, are said to be *event-driven*, because they are designed to response to events.

The entirety of Starner's disclosure is silent as the to term "event". The paragraph relied

upon for the reasoning for the rejection (para. 0027) is silent as to event processing, but instead discusses forming images, and converting images to obtain image data. However, paragraph 0030 does disclose that Starner's invention uses a Hidden Markov Models ("HMM") to analyze the images to set commands to control various electrical signals. HMMs are well-known in the industry, supported by the fact that Starner refers the reader to several extrinsic documents for further details. For example, Newton's Telecom Dictionary, 18<sup>th</sup> Edition, by Harry Newton (copyright 2002 by CMP Books), explains HMMs as follows:

**HMM** Hidden Markov Method. A common algorithm in voice recognition which uses probabilistic techniques for recognizing discrete and continuous speech.

As such, Applicants submit that a probabilistic technique is not the same as an event-driven technique because their fundamental mode or principle of operation are different. Thus, Starner fails to teach "determining a sensor sequence from a series of sensor detection events responsive to movement of a gesturing instrument within the proximity of said plurality of sensors" as claimed.

***Claim 1, Third Element.*** In the Office Action starting on Page 2, it was reasoned by the Examiner in the Office Action that Applicant's third claim element of:

"... correlating said sensor sequence to a predetermined sequence  
in order to authenticate a user of said gesturing instrument; and  
..."

is taught by Starner:

Starner et al. teaches ... correlating the sensor sequence by converting  
the set of images to data representing the captured set of images in order  
to authenticate the user of the gesturing instrument (paragraph 027).

Applicant respectfully disagrees with this conclusion. Starner's paragraph 0027 contains no mention of the term "authenticate", which is a process not only of giving a command, but of

providing an input which confirms the identity of the user, such as a password. Starner's paragraph 0027 only mentions formation of images and conversion of images, and provides no authentication function.

***Claim 1, Fourth Element.*** In the Office Action starting on Page 2, it was reasoned by the Examiner in the Office Action that Applicant's fourth claim element of:

"... responsive to authentication of said user, authorizing a physical security action."

is taught by Starner:

"Starner also teaches the use of a gesture to authorize a physical security action such as opening a door (paragraph 0035, 0038)."

Applicant agrees that Starner discloses their system may be used to authorize an action such as locking or unlocking a door. However, this element of Claim 1 must be considered not individually, but in conjunction with the other elements, steps, and limitations of the claim (e.g. the claims must be considered in their entirety), for which Starner is silent as previously discussed.

Motivation to Combine and Modify Starner and Pryor as Proposed. Regarding motivation to make the proposed Starner-Pryor combination and modification, it was stated in the Office Action on Page 3 that:

It would have been obvious to one of ordinary skill in the art for the gesture sensors of Starner et al. to be mounted on a two-dimensional array as disclosed by Pryor because this provides for the accurate determination of the pointing vector, the position and the orientation of the gesture device in order to determine the command indicated by the gesture.

Applicant requests clarification of where this motivation is found in the Starner or Pryor

disclosures, whereas the suggestion or motivation to combine and modify must be found in the cited references themselves, and not in the Applicant's disclosure.

Starner Teaches Away from Proposed Modification. Applicant respectfully submits that there can be no motivation to modify Starner as proposed, because Starner teaches away from requiring a user to be proximal to the controlled device, such as being proximal to a control panel of sensors mounted on a controlled system.

Starner discloses that requiring a user to be proximal or close to a user interface panel such as a wall panel is undesirable (emphasis added by Applicant):

[0005] An interface designed into a wall panel, the wall panel interface, generally requires a user to approach the location of the wall panel physically. A similar restriction occurs with phone interfaces. Furthermore, the phone interface comprise small buttons that render it difficult for a user to read and use the phone interface, especially a user who is elderly or has disabilities.

...

[0007] Yoshiko Hara, CMOS Sensors Open Industry's Eyes to New Possibilities, EE Times, Jul. 24, 1998, and <http://www.Toshiba.com/news/9-80715.htm>, July 1998, illustrates a Toshiba motion processor. Each of the above references is incorporated by reference herein in its entirety. The Toshiba motion processor controls various electrical devices by recognizing gestures that a person makes. The Toshiba motion processor recognizes gestures by using a camera and infrared light-emitting diodes. However, the camera and the infrared light-emitting diodes in the Toshiba motion processor are in a fixed location, thereby making it inconvenient, especially for an elderly or a disabled user, to use the Toshiba motion processor. The inconvenience to the user results from the limitation that the user has to physically be in front the camera and the infrared light-emitting diodes, to input gestures into the system. Even if a user is not elderly or has no disability, it is inconvenient for the user to physically move in front of the camera each time the user wants to control an electrical device, such as, a television or a fan.

...

[0009] Thus, a need exists in the industry to overcome the above-mentioned inadequacies and deficiencies.

To solve these deficiencies in the art, Starner discloses that their gesturing device, image capturing device, and light sources are worn by the user, thereby eliminating the need of the user to approach a wall-mounted panel (emphasis added by Applicant):

[0024] The computer 104 preferably is located at the same location as the light-emitting device 102, the image-forming device 103, and the user 106. For instance, the computer 104 can be located in a pendant or a pin that comprises the light-emitting device 102 and the image-forming device 103, and the pendant or the pin can be placed on the user 106. The pendant can be around the user's 106 neck and the pin can be placed on his/her chest. Alternatively, the computer 104 can be coupled to the image-forming device 103 via a network such as a public service telephone network, integrated service digital network, or any other wired or wireless network.

Using a network, the image processor can be remotely located or co-located with the image capturing device and the light source (paras. [0024] and [0025]). The network interface is used to send the decoded command to another system via the network.

If Starner's gesturing device, image capturing device, and light sources were modified to be fixedly mounted on a controlled system or on a wall instead of being worn by the user, Starner's modified system would take on the same undesirable characteristics as described in their background of the art section. Starner, therefore, does not provide motivation to fixedly mount their system as described by Applicant, Zimmerman and Pryor:

[0059] The image-capturing system 100 of FIGS. 1-4 is easier to use than the known command-and-control interfaces such as the remote control, the portable touch screen, the wall panel interface, and the phone interface since it does not comprise small, cryptic labels and can move with the user 106 as shown in FIGS. 1-2. Although the known command-and-control interfaces generally require dexterity, good eyesight, mobility, and memory, the image-capturing system 100 of FIGS. 1-4 can be used by those who have one or more disabilities.



The Court has established in multiple cases that where a proposed modification would change the principle of operation of the reference, or would render the reference undesirable for its intended use, or would be contraindicated by "teaching away" contained in the reference, there can be no motivation to combine or modify.

Applicant respectfully submits that the proposed combination and modification would do all three of these: it would change a principle of operation of Starner, it would render Starner undesirable for its intended use, and it would go against the "teaching away" of Starner's disclosure. Thus, Applicant suggests that there could be no motivation to modify in any manner which moves the sensors from Starner's user to a panel mounted on the controlled system, such as Pryor discloses.

Enabling Disclosure for Proposed Starner-Pryor Combination and Modification. In the Office Action, there is no mention of where enabling disclosure to complete the proposed combination is found. Applicant respectfully requests clarification from the Examiner, whereas the cited reference must not only teach all of the claimed steps, elements, and limitations, as well as provide suggestion or motivation to combine, but also must, within their own disclosures, provide enabling description of the proposed modification and combination to one of ordinary skill in the art.

**Claim 2.** Claim 2 depends from Claim 1, and thus in the Office Action, Starner and Pryor were relied upon for their teachings as previously discussed. In the Office Action, the Examiner reasoned that Applicant's claim of:

" . . . wherein said step of determining a sensor sequence comprises applying timing analysis to said series of sensor detection events."

is taught by Starner:

"Regarding claim 2, Starner et al. teaches discrete outputs are generated over time from the gesture (paragraph 035) which inherently include timing analysis to correlate the gesture with time of capture."

Applicant respectfully disagrees. Paragraph 0035 is not referring to Starner's image sensor (e.g. camera) outputs as their discrete outputs, but instead is referring to the control outputs from their entire system which go to the controlled items (e.g. to the door lock, light switches, etc.). Applicant's claim, however, is referring to the sensor event signals, and not to the invention's control outputs to the controlled panel.

There is no mention in the Office Action regarding Claim 2 where in the Starner or Pryor disclosure enabling disclosure and motivation or suggestion to meet this claims elements, steps, and limitations is found. Applicant respectfully requests clarification if this rejection is maintained.

Applicant respectfully submits that the rejection of Claim 2 should be withdrawn for the reasons as outlined with respect to the rejection of Claim 1, in addition to the reasons of the foregoing paragraphs.

**Claim 3.** In the Office Action, the Examiner reasoned that Applicant's claim of:

"... wherein said step of correlating said sequence to an authorized sequence further comprises authorizing a financial transaction."

is not taught by Starner (Page 3 of the Office Action), but is taught by Pryor:

Regarding claim 3, Sterner et al. teaches decoding a command from a gesture (paragraph 027) but is silent on teaching the authorized sequence is use in authorizing a financial transaction. Pryor in an art related machine interface invention teaches detecting signature from a free-space gesture (col. 9 lines 4-29) and the detected signature is used to authorize a financial transaction (col. 9 lines 4-10) in order to add a degree of security to the system to ensure the authenticity of the signature.

Applicant respectfully disagrees. Claim 3 depends from Claim 1, and thus in the Office Action, Starner and Pryor were relied upon for their teachings as previously discussed. Applicant respectfully submits that the rejection of Claim 3 should be withdrawn for the reasons

as outlined with respect to the rejection of Claim 1.

Regarding motivation to make this combination, the Examiner stated:

It would have been obvious to one of ordinary skill in the art for the authorized gesture sequence to be used in authorizing a financial transaction in *Starnier et al* as disclosed by *Pryor* because detecting signature from a free-space gesture and the detected signature is used to authorize a financial transaction in order to add a degree of security to the system to ensure the authenticity of the signature.

Applicant presumes this is found in *Pryor*, whereas the Examiner has not specified its location and the Examiner has agreed that *Starnier* is silent regarding teaching authentication of a financial transaction. However, such a statement in *Pryor* cannot overcome the statements contained in *Starnier* regarding the undesirability of the *Starnier-Pryor* combination, and thus there could be no motivation to combine as proposed.

There is no mention in the Office Action regarding where the Examiner believes the cited references provide enabling disclosure to meet this Claim 3's elements, steps, and limitations. Applicant respectfully requests clarification if this rejection is maintained.

Applicant respectfully submits that the rejection of Claim 3 should be withdrawn for the reasons as outlined with respect to the rejection of Claim 1, in addition to the reasons of the foregoing paragraphs.

**Claim 4.** Claim 4 depends from Claim 1. In the Office Action starting on Page 6, the Examiner has stated that the additional claimed steps, elements, or limitation of:

... wherein said step of authorizing a physical security action comprises unlocking a fuel pump.

is not taught by *Starnier* in view of *Pryor*, but is taught by *Pond* (previously-cited):

Claims 4, 6-7, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Starnier et al.* US Patent 20020071277 in view of *Pryor* US Patent 6750848 and further in view of *Pond et al.* US Patent

Application Publication 20040030601.

Regarding claims 4, 6, and 22 Starnier et al. teaches decoding a command from a gesture and authorized a physical security action of unlocking a of unlocking a door (see response to claim 1) and one skilled in the art further recognizes that the unlocking of a door allow a person to transport an item from a secured area but is silent on teaching physical security action of unlocking a fuel pump. Pond et al. in an art related payment method for a mobile device invention teaches the use of gestures as input in a payment system (paragraph 0084) and the system of purchase includes a gas dispenser (paragraph 0087) in order to allow a convenient method of payment at the pump..

Pond is Not Prior Art. Applicant respectfully disagrees that Pond has status as prior art. Please note that Pond was filed Aug. 6, 2003, which as after our filing date of January 15, 2002. Pond is a continuation-in-part of US application 09/675,618, which was filed on Sept. 29, 2000. Because Pond is a CIP of its parent case, it cannot be assumed that the entire disclosure of the later-filed published patent application enjoys priority to the parent's filing date. Further, the parent case is now patented, but was not published as a patent application, so it therefore is not available as prior art, either. As such, Pond is not available as prior art against the present patent application.

Further, Applicant requests withdrawal of the rejection of Claim 4 for the same reasons as stated regarding the rejection of Claim 1.

**Claim 5.** Claim 5 depends from Claim 1, and thus in the Office Action, Starnier and Pryor were relied upon for their teachings as previously discussed. In the Office Action, the Examiner reasoned that Applicant's claim of:

"... wherein said step of authorizing a physical security action comprises unlocking a door."

is taught by Starnier. Applicant respectfully submits that the rejection of Claim 5 should be withdrawn for the reasons as outlined with respect to the rejection of Claim 1.

**Claim 6.** Claim 6 depends from Claim 1. In the Office Action starting on Page 6, the Examiner has stated that the additional claimed steps, elements, or limitation of allowing an item to be removed from a controlled access area is not taught by Starner in view of Pryor, but is taught by Pond (previously-cited):

Regarding claims 4, 6, and 22 Starner et al. teaches decoding a command from a gesture and authorized a physical security action of unlocking a of unlocking a door (see response to claim 1) and one skilled in the art further recognizes that the unlocking of a door allow a person to transport an item from a secured area but is silent on teaching physical security action of unlocking a fuel pump. Pond et al. in an art related payment method for a mobile device invention teaches the use of gestures as input in a payment system (paragraph 0084) and the system of purchase includes a gas dispenser (paragraph 0087) in order to allow a convenient method of payment at the pump..

Pond is Not Prior Art. Applicant respectfully disagrees that Pond has status as prior art. Please note that Pond was filed Aug. 6, 2003, which is after our filing date of January 15, 2002. Pond is a continuation-in-part of US application 09/675,618, which was filed on Sept. 29, 2000. Because Pond is a CIP of its parent case, it cannot be assumed that the entire disclosure of the later-filed published patent application enjoys priority to the parent's filing date. Further, the parent case is now patented, but was not published as a patent application, so it therefore is not available as prior art, either. As such, Pond is not available as prior art against the present patent application.

Controlled Access Area is Not the Same as a Gas Pump. Applicant can find no recitation in the two Pond paragraphs regarding removal of an item from a controlled access area. Perhaps it is being held that gasoline is in a controlled access area (e.g. a station's tank?), and thus the pump is the point of control of removing gasoline from the station's tank. However, this is not clear from the reasoning provided in the Office Action, and would be an unconventional manner of speaking about gasoline station equipment.

By "controlled access area", Applicant is claiming an area such as a retail store having a theft deterrent gate at the entrance and exit of the store. This is a conventional use of the term. Further, by the Doctrine of Claim Differentiation, since other claims specifically set forth

controlling a gas pump, Claim 6 must be defining some other scope than gas pumps. Because the citations provided do not teach such a controlled access area, Starner in view of Pryor in further view of Pond does not render Claim 6 unpatentable.

Further, Applicant requests withdrawal of the rejection of Claim 4 for the same reasons as stated regarding the rejection of Claim 1.

**Claim 7.** Starting on Page 7 of the Office Action, reasoning for the rejection of Claim 7 is provided. Claim 7 depends on Claim 1.

The Examiner has reasoned that the additional claim steps, elements, or limitations of:

"... wherein said step of providing a plurality of gesturing sensors comprises providing an array of Radio Frequency Identification (RFID) sensors adapted to detect movement of RF ID devices."

is not taught by Starner in view of Pryor, but is taught by Pond as disclosed in paragraph 0084. However, as stated in the foregoing paragraphs, Pond is not prior art to the present patent application.

Further, Starner in view of Pryor fails to teach all of the claim elements, steps, and limitations, as discussed regarding the rejection of Claim 1. Applicant respectfully requests allowance of Claim 7.

**Claim 8.** In the Office Action starting on Page 8, reasoning for the rejection of Claim 8 was provided. Claim 8 depends from Claim 1. It was reasoned by the Examiner that Applicant's additional claim:

"... wherein said step of providing a plurality of gesturing sensors comprises providing an array of acoustic sensors adapted to detect movement of acoustic-reflective gesturing instruments."

is not taught by Starner in view of Pryor, but is taught by Lawrence and by Hiroaki:

Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starner et al. US Patent 20020071277 in view of Pryor US Patent 6750848 in view of Hiroaki US Patent 6661425 and further in

view of Lawrence US Patent 3580058. Regarding claims 8 and 26 Stamer et al. teaches an array of sensors to detect gestures (paragraph 020) but is silent on teaching the use of an array of acoustic sensors to detect the gesturing instrument.

Hiroaki in an art related sensor system teaches the use of acoustic sensors to detect gestures (col. 17 lines 29-33). Lawrence in an art related sensor system teaches arranging acoustic sensors to produce acoustic mismatches for generating reflective pulses (col. I lines 43- 50) for indicating the acoustic characteristic of the sensors.

It would have been obvious to one of ordinary skill in the art to modify the system of Stamer as disclosed by Hiroaki in view of Lawrence because the array of acoustic sensors for detecting gestures represents an alternative to the gesture detection system as disclosed by Stamer et al.

Applicant respectfully disagrees that it is proper to reject a claim having 5 elements or steps using 4 references – almost one reference per step or element.

Applicant requests allowance of Claim 8 for the same reasons as stated regarding the rejection of Claim 1.

**Claim 9.** In the Office Action, starting on Page 8, reasoning for rejection of Claim 9 was provided. Claim 9 depends from Claim 1. The Examiner reasoned that Applicant's additional claim of:

"... wherein said step of providing a plurality of gesturing sensors comprises providing an array of infrared ("IR") sensors adapted to detect movement of gesturing instruments which are distinguishable by heat."

is not taught by Stamer in view of Pryor, but is taught by Fleck:

Claims 9 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamer et al. US Patent Application Publication 20020071277 in view of Pryor US Patent 6750848 and further in view of Fleck et al. US Patent 6556190. Regarding claims 9 and 27, Stamer et al.

teaches an array of sensors to detect gestures (paragraph 020) but is silent on teaching providing an array of infrared (IR) sensors adapted to detect movement of gesturing instrument that are distinguishable by heat. Fleck et al. in an art related coordinate input device teaches the use of IR sensors that are distinguishable by heat (col. 7 lines 59-64) and therefore provides an alternating detecting means to the ultrasonic sensors.

Applicant respectfully disagrees that it would have been obvious to combine Fleck with Starnier in any manner. The provided citation from Fleck relates to touch-sensitive controls, which by their definition, require the user to be in contact with the controlled item.

As Starnier teaches away from their gesturing device requiring the user to be near the controlled system, Fleck's touch-sensitive approach represents an complete opposite approach which requires the user to be in actual contact with the controlled system. Thus, because modifying Starnier with Fleck as proposed would render Starnier undesirable for it's intended purpose (according to Starnier's disclosure), because the modification would change a principle of operation of Starnier, and because Starnier teaches away from such a close-proximity embodiment, there can be no motivation to make the combination as proposed.

Applicant respectfully requests allowance of Claim 9 for these reasons, and for the reasons stated regarding the rejection of Claim 1 in the foregoing paragraphs.

**Claim 10.** Starting on Page 4 of the Office Action, reasoning for the rejection of claim 10 is provided. Claim 10 is directed towards a computer readable medium (e.g. an article of manufacture) which is encoded with software which will perform certain steps. The steps correlate to the steps set forth in Claim 1. For the reasons presented by the Applicant regarding the rejection of Claim 1 over Starnier in view of Pryor, Applicant requests withdrawal of the rejection of Claim 10.

**Claim 11.** Starting on Page 5 of the Office Action, reasons for the rejection of Claim 11 are provided. Claim 10 is directed towards a computer readable medium (e.g. an article of manufacture) which is encoded with software which will perform certain steps. The steps correlate to the steps set forth in Claim 1. Claim 11 depends from Claim 10, and sets forth additional steps, elements, and limitations correlating to those of Claim 2.



It was reasoned by the Examiner that:

"Starner et al. teaches discrete outputs are generated over time from the gesture using a computer (paragraph 035) which inherently include timing analysis to correlate the gesture with time of capture and the computer inherently include software for performing the gesture recognition functions."

Applicant respectfully disagrees. Starner's paragraph 0035 is directed towards the control outputs of their system, and more specifically to user-defined gestures which are used less frequently than the control gestures. However, there is no mention of any processes which imply or would inherently require timing analysis. The Hidden Markov Methods as disclosed in paragraph 0030 do not necessarily include timing analysis, either.

If this rejection is maintained, Applicant respectfully requests further explanation to support a position of inherency. Applicant requests withdrawal of the rejection of Claim 11 for the same reasons as discussed relative to the rejections of Claims 1 and 2.

**Claim 12.** Starting on Page 5 of the Office Action, reasoning for the rejection of Claim 12 is provided. Claim 10 is directed towards a computer readable medium (e.g. an article of manufacture) which is encoded with software which will perform certain steps. The steps correlate to the steps set forth in Claim 1. Claim 12 depends from Claim 10, and sets forth further steps, elements, or limitations correlating to Claim 3.

Applicant, therefore, requests withdrawal of this rejection for the same reasons stated regarding the rejections of Claims 1 and 3.

**Claim 13..** Starting on Page 4 of the Office Action, reasoning for the rejection of Claim 13 is provided. Claim 10 is directed towards a computer readable medium (e.g. an article of manufacture) which is encoded with software which will perform certain steps. The steps correlate to the steps set forth in Claim 1. Claim 13 depends from Claim 10, and sets forth:

"... wherein said software for authorizing a physical security action comprises software for unlocking a fuel pump."

Therefore, for the reasons presented by the Applicant regarding the rejection of Claim 1 over Starner in view of Pryor, Applicant requests withdrawal of the rejection of Claim 10.

Applicant points out that the claim limitation "unlocking a fuel pump" is not supported in the Examiner's reason – there is no citation where this is found in Starner or Pryor. If this rejection is maintained, Applicant respectfully requests clarification from the Examiner where this is taught in the references.

**Claim 14.** Starting on Page 4 of the Office Action, reasoning for the rejection of Claim 13 is provided. Claim 10 is directed towards a computer readable medium (e.g. an article of manufacture) which is encoded with software which will perform certain steps. The steps correlate to the steps set forth in Claim 1. Claim 14 depends from Claim 10. For the reasons presented by the Applicant regarding the rejection of Claim 1 over Starner in view of Pryor, Applicant requests withdrawal of the rejection of Claim 14.

**Claim 15.** Starting on Page 4 of the Office Action, reasoning for the rejection of Claim 13 is provided. Claim 10 is directed towards a computer readable medium (e.g. an article of manufacture) which is encoded with software which will perform certain steps. The steps correlate to the steps set forth in Claim 1. Claim 15 depends from Claim 10. Claim 15 further claims:

"... wherein said software for authorizing a physical security action comprises software for allowing removal of a physical item from a controlled access area."

For the reasons presented by the Applicant regarding the rejection of Claim 1 over Starner in view of Pryor, Applicant requests withdrawal of the rejection of Claim 15.

Applicant points out that the claim limitation "allowing removal of a physical item from a controlled access area" is not supported in the Examiner's reason – there is no citation where this is found in Starner or Pryor. Unlocking a door or authorizing a financial transaction are not the same as allowing removal of a physical item from a controlled access area.

Please note that the additional steps, elements, and limitations of Claim 15 closely

correlate to those set forth in method Claim 6. And, note that in the reasoning for rejection of Claim 6 starting on Page 7 of the Office Action, the Examiner has stated that Starner in view of Pryor fails to teach the limitations of Claim 6. Thus, by the Examiner's own reasoning, the rejection of Claim 15 over Starner in view of Pryor is inappropriate.

For the reasons stated regarding the rejections of Claims 1, 6, and 10, Applicant requests allowance of Claim 15.

**Claim 16.** In the Office Action, starting on Page 9, reasons for rejection of Claim 16 over Starner in view of Pond are given. Claim 16 sets forth analogous article of manufacture claim steps, elements, and limitations to those set forth in method Claim 7. Therefore, Applicant respectfully requests allowance of Claim 16 for the same reasons as stated regarding the rejection of Claim 7.

**Claim 17.** In the Office Action, starting on Page 9, reasons for rejection of Claim 17 over Starner in view of Pryor in further view of Hiroaki in still further view of Lawrence are given. Claim 17 sets forth analogous article of manufacture claim steps, elements, and limitations to those set forth in method Claim 8. Therefore, Applicant respectfully requests allowance of Claim 17 for the same reasons as stated regarding the rejection of Claim 8.

**Claim 18.** In the Office Action, starting on Page 10, reasons for rejection of Claim 18 over Starner in view of Pryor in further view of Fleck are given. Claim 18 sets forth analogous article of manufacture claim steps, elements, and limitations to those set forth in method Claim 9. Therefore, Applicant respectfully requests allowance of Claim 18 for the same reasons as stated regarding the rejection of Claim 9.

**Claim 19.** In the Office Action, starting on Page 6, reasons for rejecting independent Claim 19 were given. Claim 19 is a system claim, but the reasoning for the rejection refers to the methods disclosed by Starner and Pryor. The reasoning for the rejection does not address explicitly all of the individual elements recited in Claim 19, nor does it duplicate the reasoning set forth in the rejection of Claim 1.

Applicant assumes that the Examiner intended to apply the same rationale for the

rejection of Claim 1 to Claim 19, whereas Claim 19 sets forth elements and limitations analogous to those set forth in an method embodiment in Claim 1.

Therefore, Applicant respectfully requests allowance of Claim 19 for the same reasons as presented regarding the rejection of Claim 1.

**Claim 20.** In the Office Action, starting on Page 6, reasons for rejecting independent Claim 20 were given. Claim 20 depends from Claim 19, and sets forth system embodiment claim elements and limitations analogous to those set forth in method Claim 2. Applicant respectfully requests allowance of Claim 20 for the same reasons as presented regarding the rejection of Claim 2.

**Claim 21** Starting on Page 5 of the Office Action, reasoning for the rejection of Claim 21 is provided. Claim 19 is directed towards a system embodiment having the functionality and operations correlating to the steps claimed in Claim 1. Claim 21 depends from Claim 19, and sets forth further steps, elements, or limitations correlating to Claim 3.

Applicant, therefore, requests withdrawal of this rejection for the same reasons stated regarding the rejections of Claims 1, 3, and 19.

**Claim 22.** Starting on Page 7 of the Office Action, reasoning for the rejection of Claim 22 is provided. Claim 19 is directed towards a system embodiment having the functionality and operations correlating to the steps claimed in Claim 1. Claim 22 depends from Claim 19, and sets forth further steps, elements, or limitations correlating to Claim 4.

Applicant, therefore, requests withdrawal of this rejection for the same reasons stated regarding the rejections of Claims 1, 4, and 19.

**Claim 23.** Starting on Page 6 of the Office Action, reasoning for the rejection of Claim 23 is provided. Claim 19 is directed towards a system embodiment having the functionality and operations correlating to the steps claimed in Claim 1. Claim 23 depends from Claim 19, and sets forth further steps, elements, or limitations correlating to Claim 5.

Applicant, therefore, requests withdrawal of this rejection for the same reasons stated regarding the rejections of Claims 1, 5, and 19.

**Claim 24.** Starting on Page 6 of the Office Action, reasoning for the rejection of Claim 24 is provided. Claim 19 is directed towards a system embodiment having the functionality and operations correlating to the steps claimed in Claim 1. Claim 24 depends from Claim 19, and sets forth further steps, elements, or limitations correlating to Claim 6 regarding controlling the removal of an item from a controlled access area.

Please note that the additional steps, elements, and limitations of Claim 24 closely correlate to those set forth in method Claim 6. And, note that in the reasoning for rejection of Claim 6 starting on Page 7 of the Office Action, the Examiner has stated that Starner in view of Pryor fails to teach the limitations of Claim 6. Thus, by the Examiner's own reasoning, the rejection of Claim 24 over Starner in view of Pryor is inappropriate.

Applicant, therefore, requests withdrawal of this rejection for the same reasons stated regarding the rejections of Claims 1, 6, and 19.

**Claim 25.** Starting on Page 7 of the Office Action, reasoning for the rejection of Claim 25 is provided. Claim 25 depends on Claim 19, and sets forth a system embodiment analogous to the method embodiments of the invention claimed in Claim 7 and Claim 1.

Applicant respectfully requests allowance of Claim 25 for the same reasons as set forth in the argument regarding the rejections of Claims 19, 7 and 1.

**Claim 26.** In the Office Action starting on Page 8, reasoning for the rejection of Claim 26 was provided. Claim 26 depends from Claim 19. Claim 19 sets forth an system claim analogous to the method claim of Claim 1, and Claim 26 sets forth a dependent system claim analogous to the dependent method claim of Claim 8.

For the same reasons as stated regarding the rejections of Claims 19, 8, and 1, Applicant respectfully requests allowance of Claim 26.

**Claim 27.** In the Office Action, starting on Page 8, reasoning for rejection of Claim 27 was provided. Claim 27 depends from Claim 19 and sets forth analogous system embodiment elements, steps, and limitations to those of method Claim 9. Applicant respectfully requests allowance of Claim 27 for the reasons stated regarding the rejections of Claims 19, 9, and 1.

On the basis of the foregoing reasons, Applicant respectfully requests reconsideration of all rejections, and allowance of all claims.

Respectfully Submitted,

*/ Robert Frantz /*

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